



MICROWELL



WALL-MOUNTED SWIMMING POOL DEHUMIDIFIER
USER'S & INSTALLATION MANUAL

MODEL: DRY 300 & 500 SILVER/METAL

Thank you for your decision to purchase our device.

Please read this user manual carefully before starting to use the device.

Please keep the instructions of this practical guide in order to get a quick know-how.

We do not take any responsibility or provide warranty in case of damage, loss or damnification caused by incorrect usage or usage for other purposes, not specified in this manual.

- Contents:
1. Safety measures
 2. Usage specification
 3. Instructions for use
 4. Instructions for maintenance
 5. Servicing the unit
 6. Installation guide
 7. Technical data

1. SAFETY MEASURES

- Do not manipulate with the device with wet hands.
- Do not spray any flammable substances into the equipment; this might lead to fire.
- Do not clean the device with water.
- The cover of the device is made of rustless steel. For cleaning and polishing the cover without making any undesired matt blobs on its surface, use grooming and protective articles suitable for rustless metal surfaces. Apply some drops on a dry and non-fluffy clout and then smoothly wipe it into the surface. After 2 minutes of drying, wipe it again and polish it using a dry and clean clout (grooming article together with a clout is in the package).
- Do not clean the equipment with aggressive cleaning agents, this might lead to damage or deformations.
- Never throw or insert any objects into any tube or opening.
- Use this device only for the intended purpose, as described in the attached instructions for use. Do not use components, which are not recommended.
- Never block the air opening of the product. Protect the air openings from clogging by particles, hair etc.
- When the device is not running correctly (smoke, smell, etc.), switch off the device by a circuit breaker in the switchboard.
- Repairs and relocations must be performed only by a service technician.
- Before cleaning the device, switch off the circuit breaker in the switchboard.
- Do not place any objects on the surface of the device.
- When you do not intend to use the device for a longer time, switch off the circuit breaker.

2. USAGE SPECIFICATION

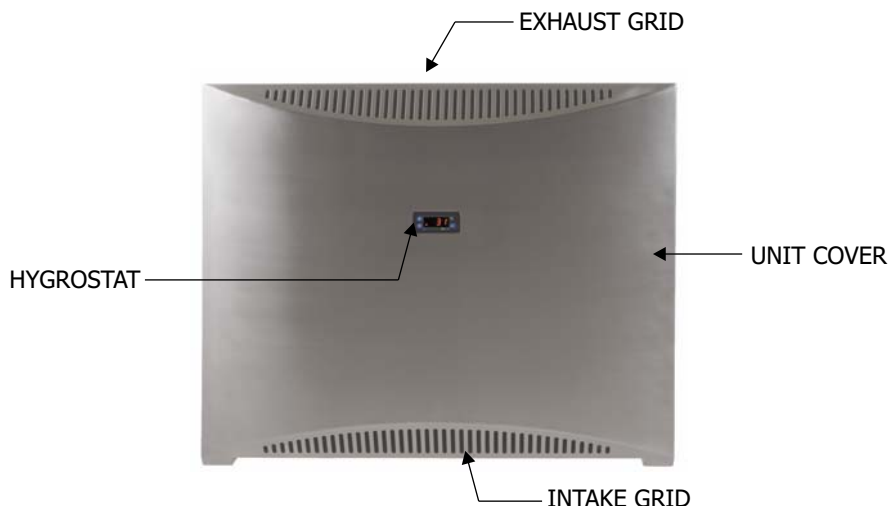
The units are designed especially for use in indoor swimming pools, spas and saunas. They can also be very useful in laundries, drying rooms and elsewhere.

Microwell DRY 300 SILVER/METAL is designed for rooms with a swimming pool, which surface is up to 30 m².

Microwell DRY 500 SILVER/METAL is designed for rooms with a swimming pool, which surface is up to 60 m².

The condition of using the equipment is keeping a room temperature within a range between min. 22 ° C and max. 35 ° C.

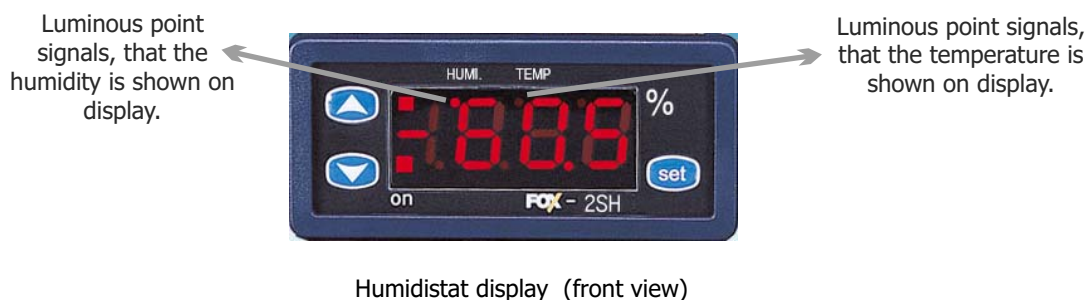
Optimal situation occurs when the room temperature is about 2-3 ° C higher than a swimming pool water-temperature.



3. INSTRUCTIONS FOR USE

3.1. Humidity regulation with an inbuilt digital humidistat located in the cover of the equipment

The inbuilt humidistat is located in the cover of the device. It reads the humidity of the incoming air, and depending on the set value, switches on the compressor. In indoor swimming pool halls, the optimal air humidity level should range between 55% and 65 %. Decreasing the level of humidity under the above mentioned range is not desirable, considering the physiological aspects as well as the aspects of providing building protection. Moreover, it increases the consumption of electrical energy. The humidistat can be controlled by the user.



Humidity setting

60.0

Current humidity or current temperature display.

set

By pressing the "set" button, the requested value blinks.

30.0

By pressing the ▲ or ▼ button, the requested value changes.

set

By repressing the "set" button after the requested value has been changed, "OK" symbol appears and the requested value is saved.

OK

60.0

The current humidity or temperature is shown on display.

Changing the display of humidity and temperature

Luminous point with "HUMI" symbol on a display frame signals the humidity display.

60.0

By pressing the ▼ button when the current humidity is being displayed, the current temperature will be shown.

25.2

By pressing the ▲ button when the current temperature is being displayed, the current humidity will be shown.

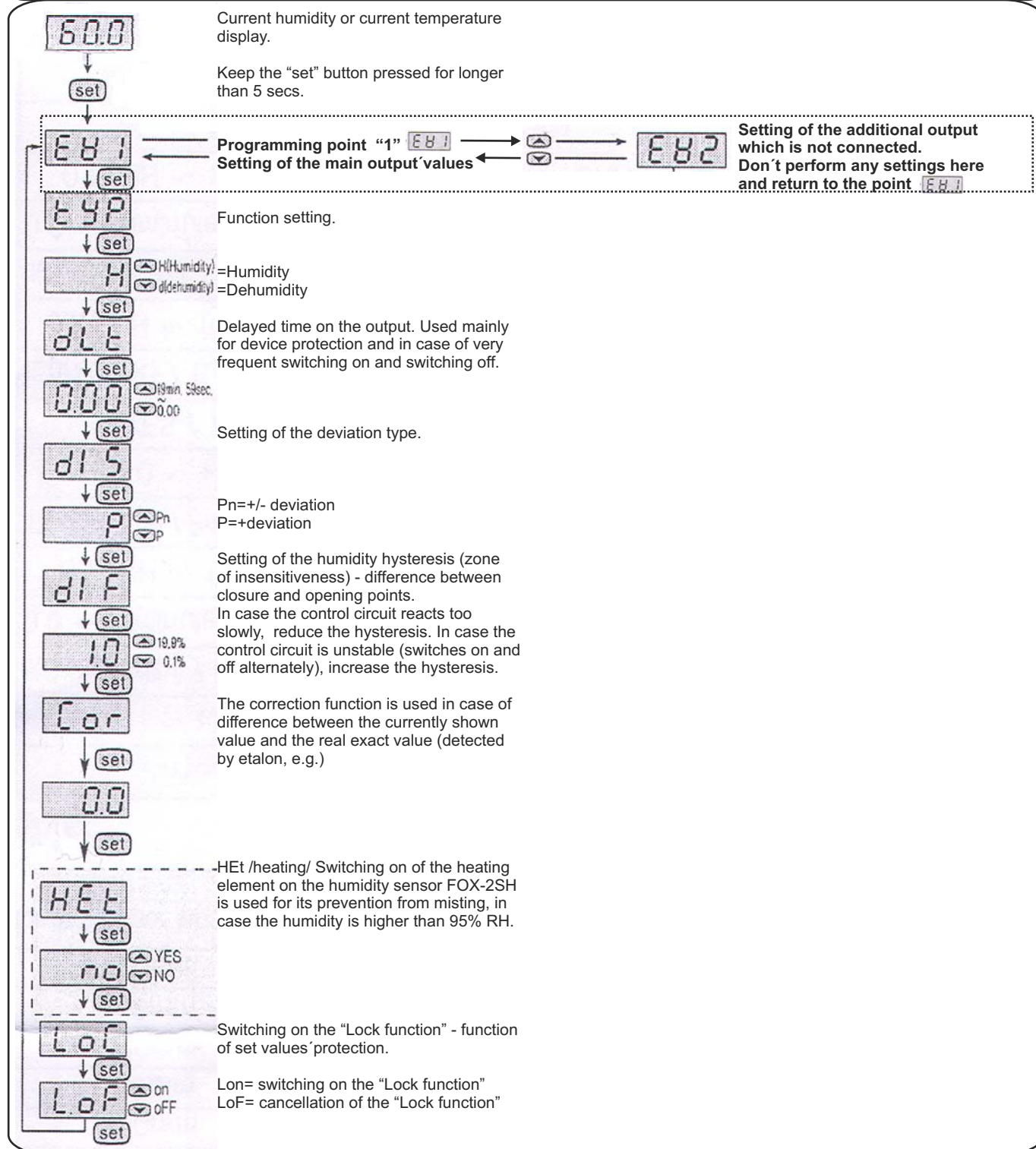
Luminous point with "TEMP" symbol on a display frame signals the temperature display.

Although the current temperature is shown on a display, all the functions work on the basis of the humidity value.

Failure reporting

- Er1 Memory failure. Switch off and then switch on again the electrical connection. If the failure reporting continues, please ask us to change the component.
- 0-E Sensor failure. The electrical connection of the sensor is broken off. Please control the cable.
- S-E Sensor failure. The sensor is short-circuited. Please control the cable.

Program setting



By keeping the "set" button pressed for longer than 5 secs, the setting gets finished and you return to a mode of current humidity display.

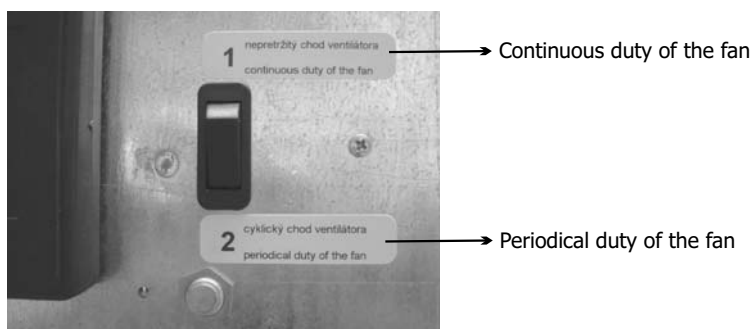
In case of inactiveness for longer than 30 secs, this is done automatically.

3.2. Humidity regulation with a back-up mechanical humidistat located in the electronic box

In the electronic box there is a back-up mechanical humidistat, which is set on the value of 70 % RH. This humidistat has a back-up function in case of digital humidistat failure. User should not perform any regulation of this humidistat.

3.3. Fan regulation

Under the inside cover of the unit, there is a two-positional fan mode switch. In the first position, the fan runs even if the compressor of the appliance has stopped: continuous operation of the fan. In the second position, the fan only runs simultaneously with the compressor: periodical duty of the fan. The continuous operation mode of the fan is preferable, since the humidity reader built in the device continuously reads humidity, and therefore a greater accuracy is reached. At the same time, continuous operation of the fan results in better air circulation in the room. The installation work supplier selects the mode of the fan according to the request of the user.



Switch of fan operation

3.4. Compressor regulation

The compressor's operation starting is for securing its protection, delayed by min. 3 minutes. Depending on the humidity of environment, it may last even longer. The user must not manipulate with the setting element of a time relay.

4. MAINTENANCE INSTRUCTIONS

It is necessary to make sure that the intake- and exhaust outlet are not covered. It is forbidden to place towels or clothes on the exhaust outlet, to dry them. Cleaning the device's cover can be done only using grooming articles suitable for rustless steel surfaces. In case there is a water dripping from the equipment, check whether a condensate pipe is not obstructed.

5. SERVICING THE UNIT

At least once a year, it is necessary to have the unit checked and cleaned by a service specialist. This is necessary in order to secure a long operational life of the device. Cleaning the interior parts of the device by a user is not recommended, as this may lead to a damage on the unit. The device contains mobile elements as well as elements under electrical pressure, therefore the interior parts can be cleaned only by a certified electrician with an appropriate knowledge of refrigerating technology.

6. INSTALLATION GUIDE

The unit must be installed in compliance with the local installation and electrical installation regulations !

6.1. Unit location

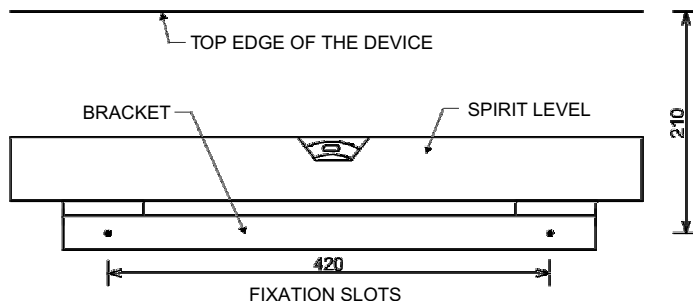
The unit is to be installed on the wall or on the mobile stand. To ensure the right operations of the dehumidifier and its maximum efficiency in terms of humidity control, it is necessary to ensure proper air circulation into and from the dehumidifier. This requires the actual unit placement appropriately into the swimming pool hall respecting basic prerequisites of air circulation and air flow. It is strictly forbidden to install the unit just below the ceiling. At least 200mm of a free space must be kept above the unit and at least 150mm below the unit. Each swimming pool hall is individual thus a special care needs to be taken to choose a proper dehumidifier placement. It is forbidden to install the unit on the ground. It is also strictly forbidden to block the air inlet and outlet with any objects (canoe, buckets, ceiling beams, etc.). For maintenance purposes please keep free space of 200mm on both sides of the dehumidifier.

6.2. Equipment fixation

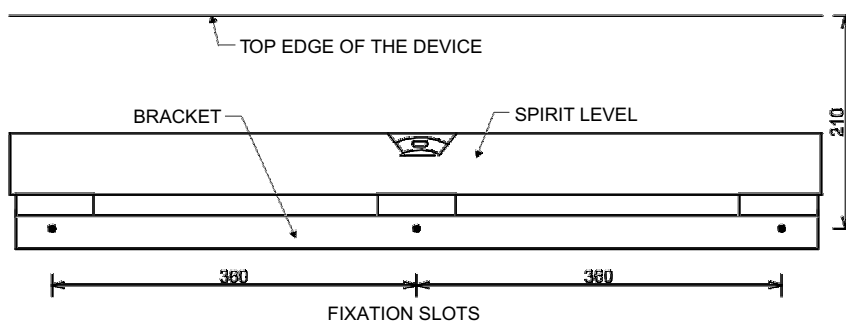
The equipment has a self-supporting construction and is very easy to install.

There is an installation bracket included in the equipment accessories, which must be fixed on the wall. The axis of the fixation slots is 210 mm lower than the top edge of the device. The distance between the fixation slots is 420 mm (DRY 300 SILVER/METAL) and 360 mm (DRY 500 SILVER/METAL). When the bracket is fixed, it is possible to hang up the device without dismounting its cover.

Model DRY 300 SILVER/METAL



Model DRY 500 SILVER/METAL

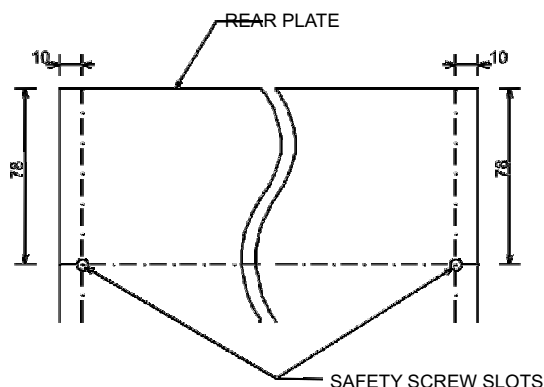


6.3. Dismounting and mounting of the cover

The cover can be dismounted after releasing two screws (DRY 300 SILVER/METAL) or three screws (DRY 500 SILVER/METAL) at the bottom of the device. Release the screws, pull the bottom part of the cover toward yourself and then, by lifting it shortly, rake down the cover from the rear plate. To mount the cover, carry the procedure out in reverse order.

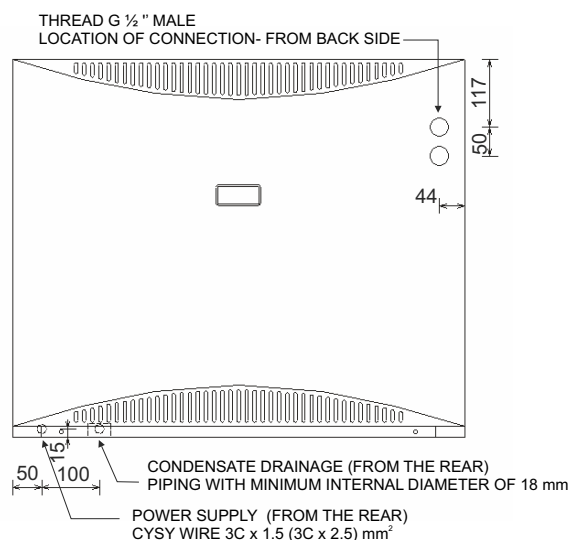
6.4. Position assuring of the device

The design of the device enables its safe mounting and proper fixation even if lifted accidentally. There are slots for safety screws accessible after dismantling a front fibreglass cover, located in the top corners of the rear plate. There is an arrow that indicates safety screw slots in the rear plate. The safety screw is fixed through a slot in the rear plate into a wall fastener. It prevents the device from being pulled out and from falling out from a mounting bracket. At the same time, it secures a vertical position of the device together with a device alignment with a wall.



6.5. Condensate drain

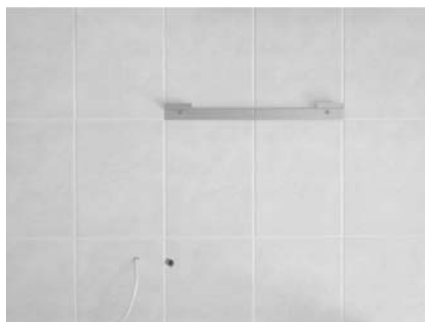
Condensed water is drained from the device by the force of gravity. It is necessary to locate the device in a way that enables sufficient condensed water gradient. The condensate must be delivered through a siphon into the sewer or into the outside environment. It is strictly forbidden to deliver the condensate back into the swimming pool, as it may be bacterially contaminated. There is a tube for condensed water delivery located at the bottom of the device, on the left side. This tube must be plugged into a sewerage pipe with an internal diameter of minimum 18 mm.



DRY 300 SILVER/METAL and DRY 500 SILVER/METAL with connections (front view)

6.6 Connecting the device to the mains

Connecting the device onto the mains and protection securing must satisfy the requirements of relevant norms. Connection requirements are the following: 220-240 V/50Hz, protection 10A (DRY 300 SILVER/METAL) and 16A (DRY 500 SILVER/METAL) with a mains-fuse that has a current-carrying differential disconnecting capacity, not exceeding 30mA. There is a terminal for connection to the mains, located on the left hand side of the device. The master switch of the device must be located outside the swimming pool area, it must be bipolar and with L and N conductors' disconnecting. The device for disconnecting the appliance from the mains must be inbuilt to a steady point. There has to be a distance of min. 3 mm between the contacts (when switched off) for all the poles. Connection of the device to the mains must be performed by a certified electrician.



Preparation of electric power supply, condensate drain and console mounting

DEVICE LOCATION

Device location must be in accordance with HD 384.7.702 S1 and IEC 60364-7-702 standard.

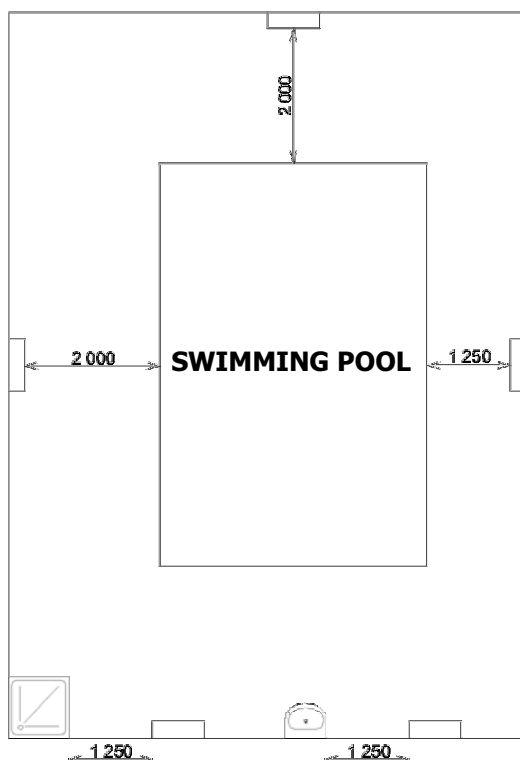
It is recommended to locate the device outside zones 0,1 and 2.

In case the device is located into zones 2 or 1, HD and IEC standards' requirements must be satisfied.

ZONE 1, IPX4

Swimming pools which are not cleaned by splashing water

In the distance of 1250 - 2000 mm from the swimming pool edge in accordance with HD and IEC standards and at least 300 mm above the floor



ZONE 2, IPX2

Swimming pools which are not cleaned by splashing water

In the distance of 2000 - 3500 mm from the swimming pool edge. In accordance with HD and IEC standards and at least 300 mm above the floor, in order to secure the sufficient air-circulation. It is strictly forbidden to install the device onto the floor.

OUTSIDE THE ZONES

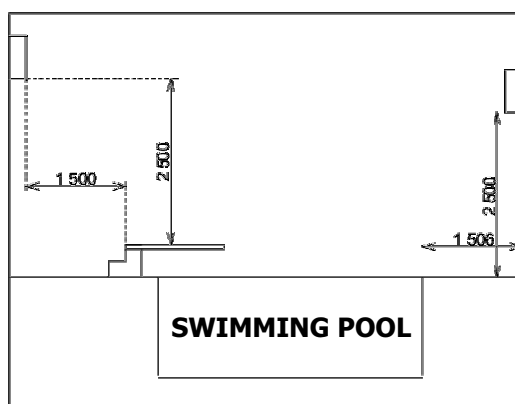
In the distance of 1250 mm or less from the swimming pool edge, the bottom edge of the device must be 2500 mm above the swimming pool surface.

At least 1250 mm (i.e. out of the reach of the hand) from the side edge of the shower cabinet. It cannot be placed above the shower cabinet.

At least 1250 mm (i.e. out of the reach of the hand) from the side edge of the wash basin, in the minimum height of 1200 mm above ground. It cannot be placed above the wash basin.

OUTSIDE THE ZONES

In the distance of at least 1500 mm from the vertical plane around jumping platforms, jumping boards and starting blocks, 2500 mm above the highest surface, where people are likely to stay.



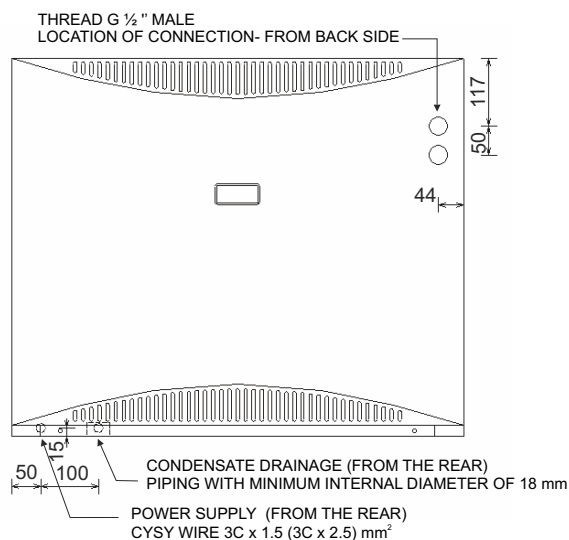
OUTSIDE THE ZONES

If the unit is in the distance of less or equal to 1250 mm horizontally from the edge of the swimming pool, then it must be raised up to the height of 2500 mm from the swimming pool surface; if the pool is embedded under the floor, then the unit must be raised up to the height of 2500 mm from the floor.

It is inevitable to locate the device outside the zones, where cleaning with splashing water is supposed. Connection of the unit to the mains and its protection must correspond with the applicable standards. Electrical supply of the unit must be carried out by a protective isolating transformer, or it must be protected by a current protector with a current-carrying differential disconnecting capacity, not exceeding 30mA.

6.7. LPHW heater element - to order

The LPHW heater elements are supplied only to order. Connection of the hot water heater element onto the LPHW plumbing is carried out similarly to the installation of radiators. On the feeder pipe, it is connected by a control valve and on the return pipe by a closing screw joint. The LPHW is not supplied with a control valve and a screw joint; these are supplied by the supplier of the heating.



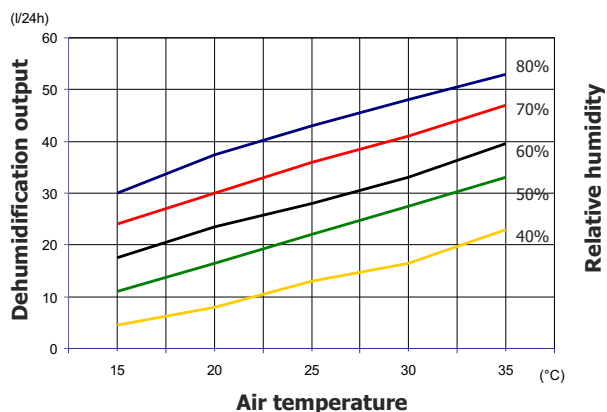
Attachment of the heater element to the distribution of the heating water

After installing the LPHW plumbing and leading the LPHW into the element under pressure, it is necessary to bleed the heater element. The bleeding valve is located on the feeder pipe of the LPHW heater element. To secure that the LPHW heater element works always at full heat output, blowing onto the unit by a fan must be provided even when no dehumidification is being performed. Therefore, when using the LPHW heater element, the switch of fan operation must be switched into the position of continuous operation.

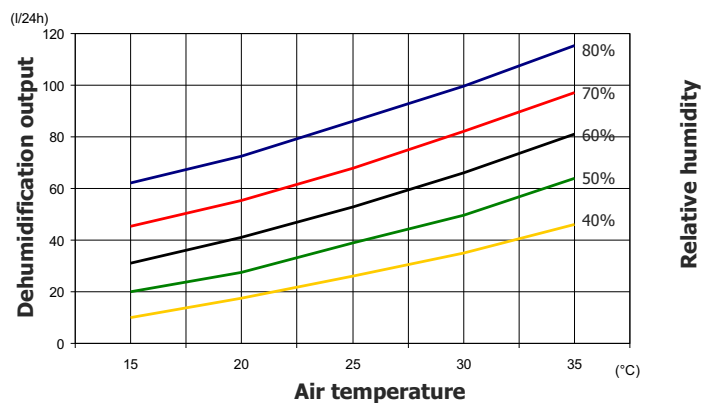
7. Technical data

TECHNICAL DATA	UNITS	DRY 300 SILVER/METAL	DRY 500 SILVER/METAL
For swimming pools with max. surface	m ²	30	60
DEHUMIDIFICATION PERFORMANCE:			
at 30 °C and 60 % RH	l/24 h	33	66
at 30 °C and 70 % RH	l/24 h	42	83
at 30 °C and 80 % RH	l/24 h	47	101
Operating temperature range	°C	22-35	22-35
Operating humidity range	% Rw	20-100	20-100
Air flow	m ³ /h	440	740
Noisiness (in 1 m distance)	dB (A)	42	44
Thermal capacity	W	1900	3500
Electrical power consumption	W	700	1000
Voltage	V/Hz/f	230/50/1	230/50/1
Operating current / Starting current	A	4.4 / 15.8	7.5 / 30
Protection	A	10	16
Mechanical Protection	IP	44	44
Conductor	mm ²	CYSY 3C x 1.5	CYSY 3C x 2.5
Pipe for condensate delivery (min. interior diameter)	mm	d 18	d 18
Sizing (width x height x depth)	mm	780 x 653 x 300	1245 x 653 x 300
Package sizing (width x height x depth)	mm	850 x 735 x 345	1315 x 735 x 345
Weight - net / in package	kg	50/56	77/86
Refrigerant - R 410 A	kg	0.5	0.75
Max. pressures in the system HP/LP	bar	28.5/8.5	28.5/8.5
Dehumidifier efficiency rate	DER	2.4	2.7

**OUTPUT DIAGRAM OF DEHUMIDIFICATION
DRY 300 SILVER/METAL**



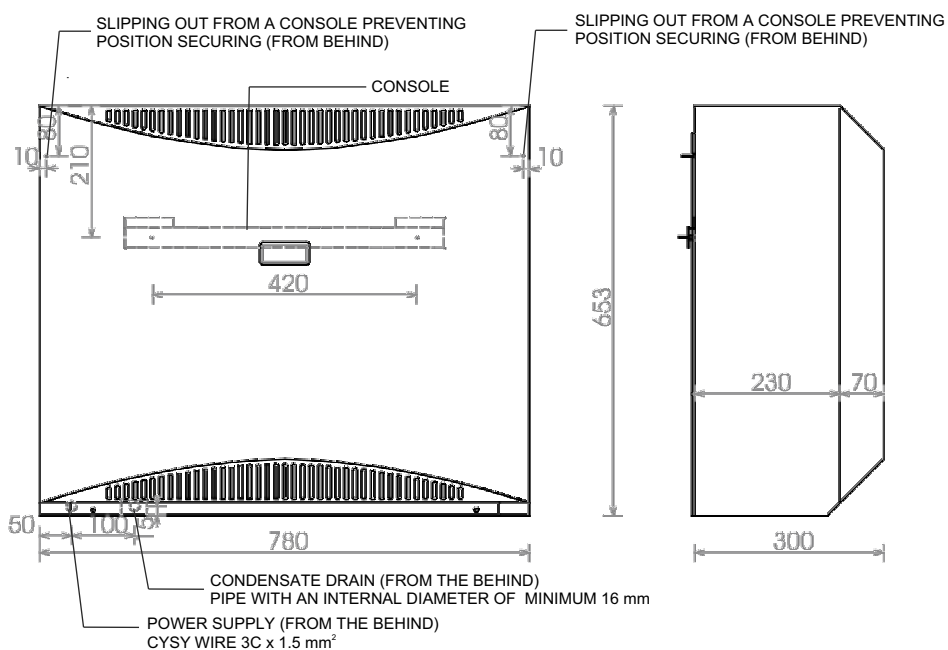
**OUTPUT DIAGRAM OF DEHUMIDIFICATION
DRY 500 SILVER/METAL**



DRY 300 SILVER/METAL swimming pool dehumidifier parameters

FRONT VIEW

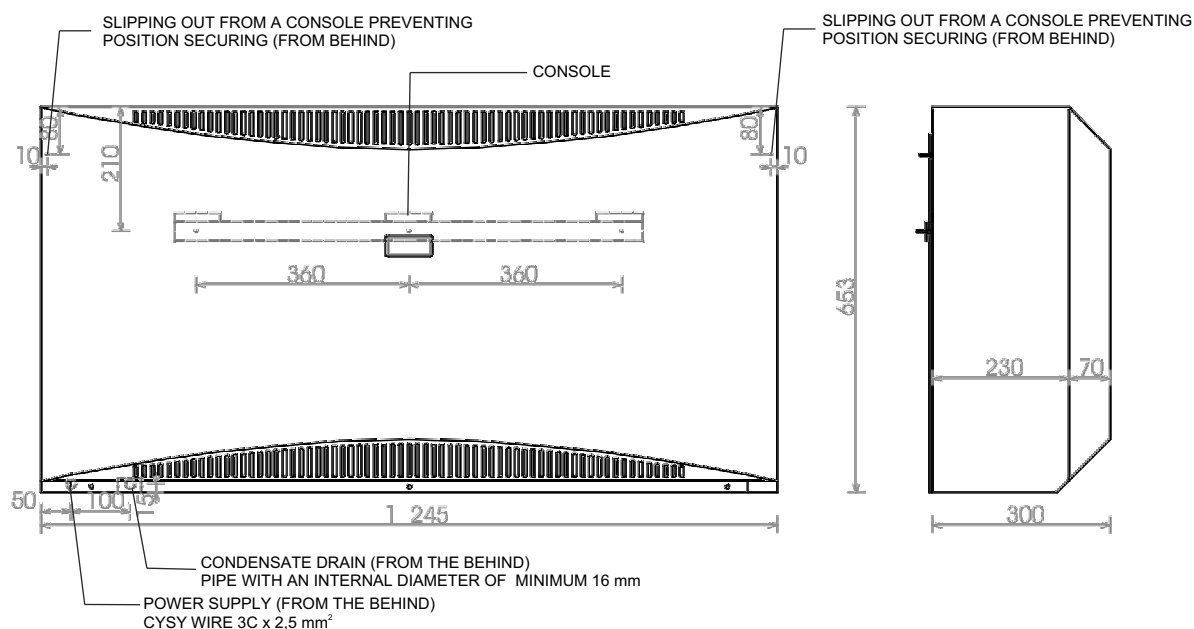
SIDE VIEW



DRY 500 SILVER/METAL swimming pool dehumidifier parameters

FRONT VIEW

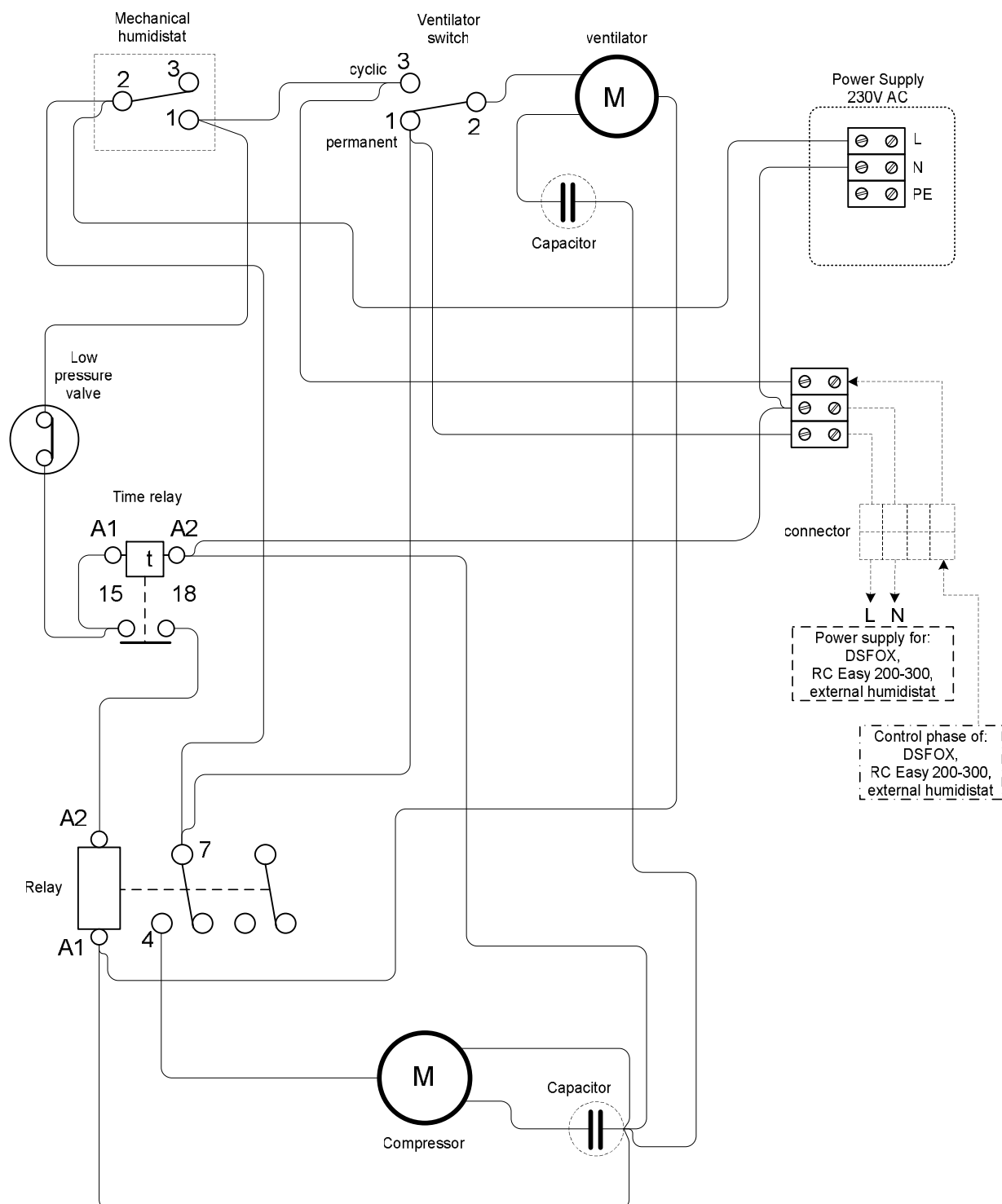
SIDE VIEW



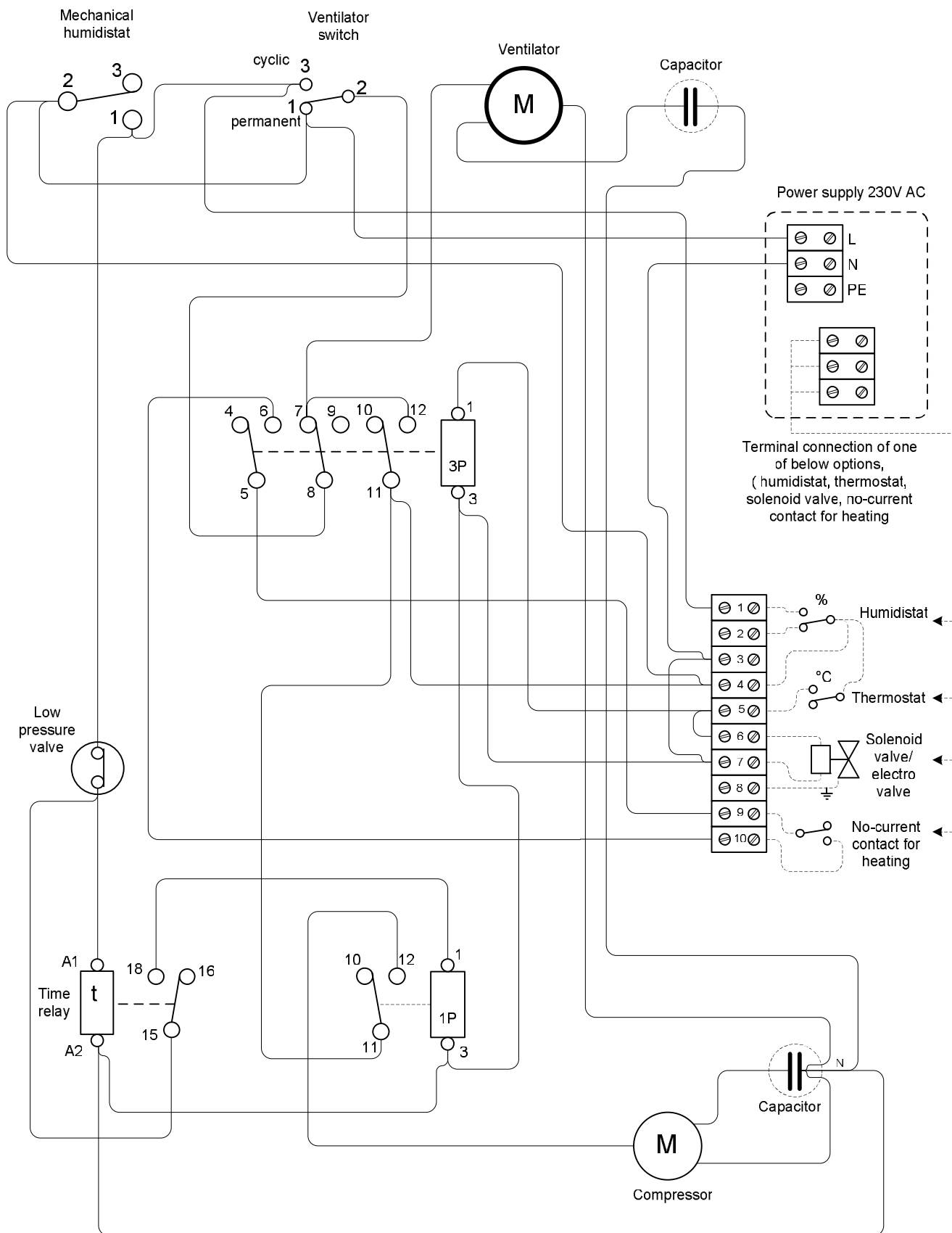
WIRING DIAGRAM OF MODEL MICROWELL DRY 300 SILVER/METAL

	DRY 300 Standard	DRY 300 EASY 200 / HYG 6001	DRY 300 LPHW / Solenoid
METAL	DRY 300.1	DRY 300.1	DRY 300.2
SILVER	DRY 300.1	DRY 300.1	DRY 300.2

DRY 300.1



Note: Producer reserves right to make changes on wiring.

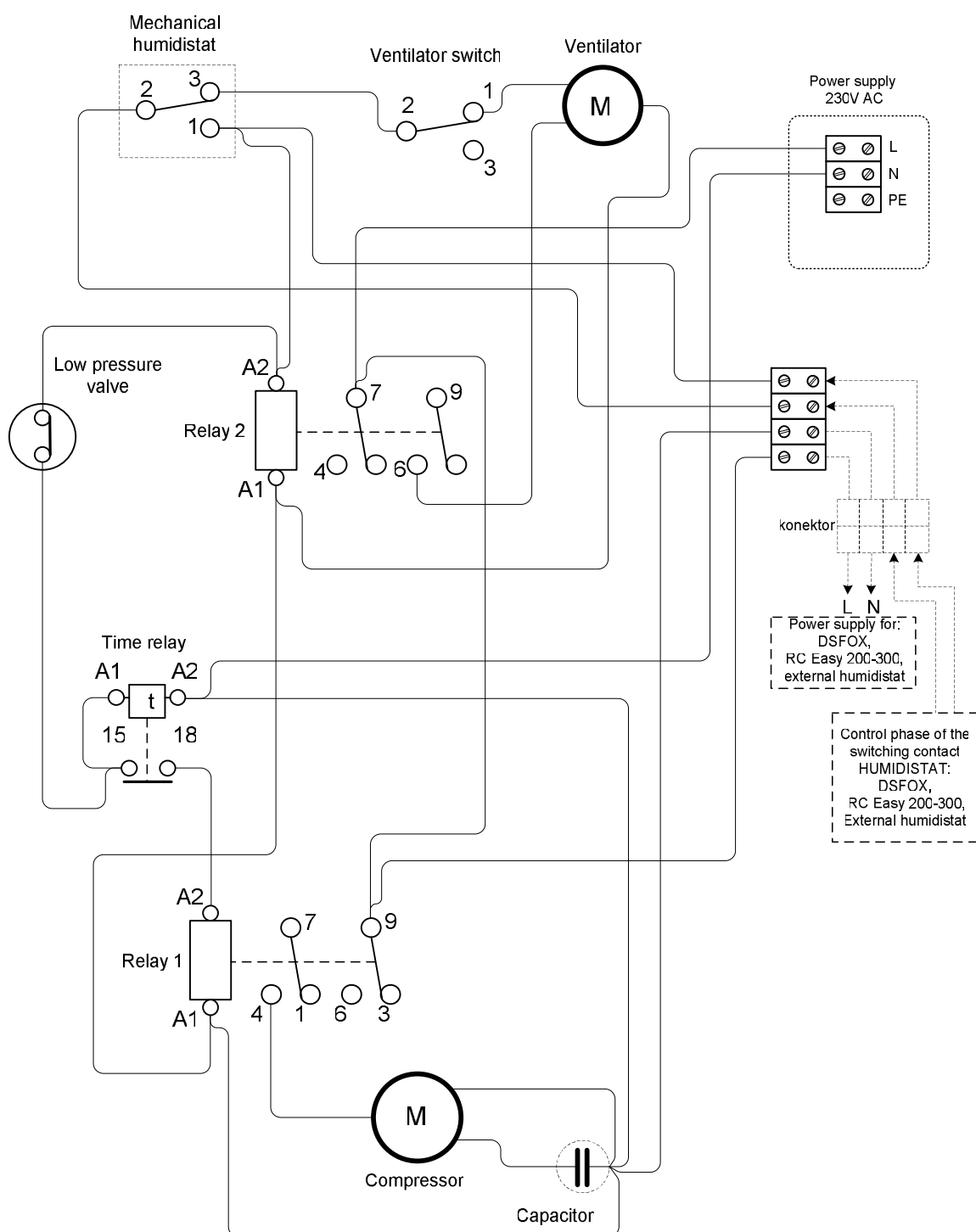
DRY 300.2

Note: Producer reserves right to make changes on wiring.

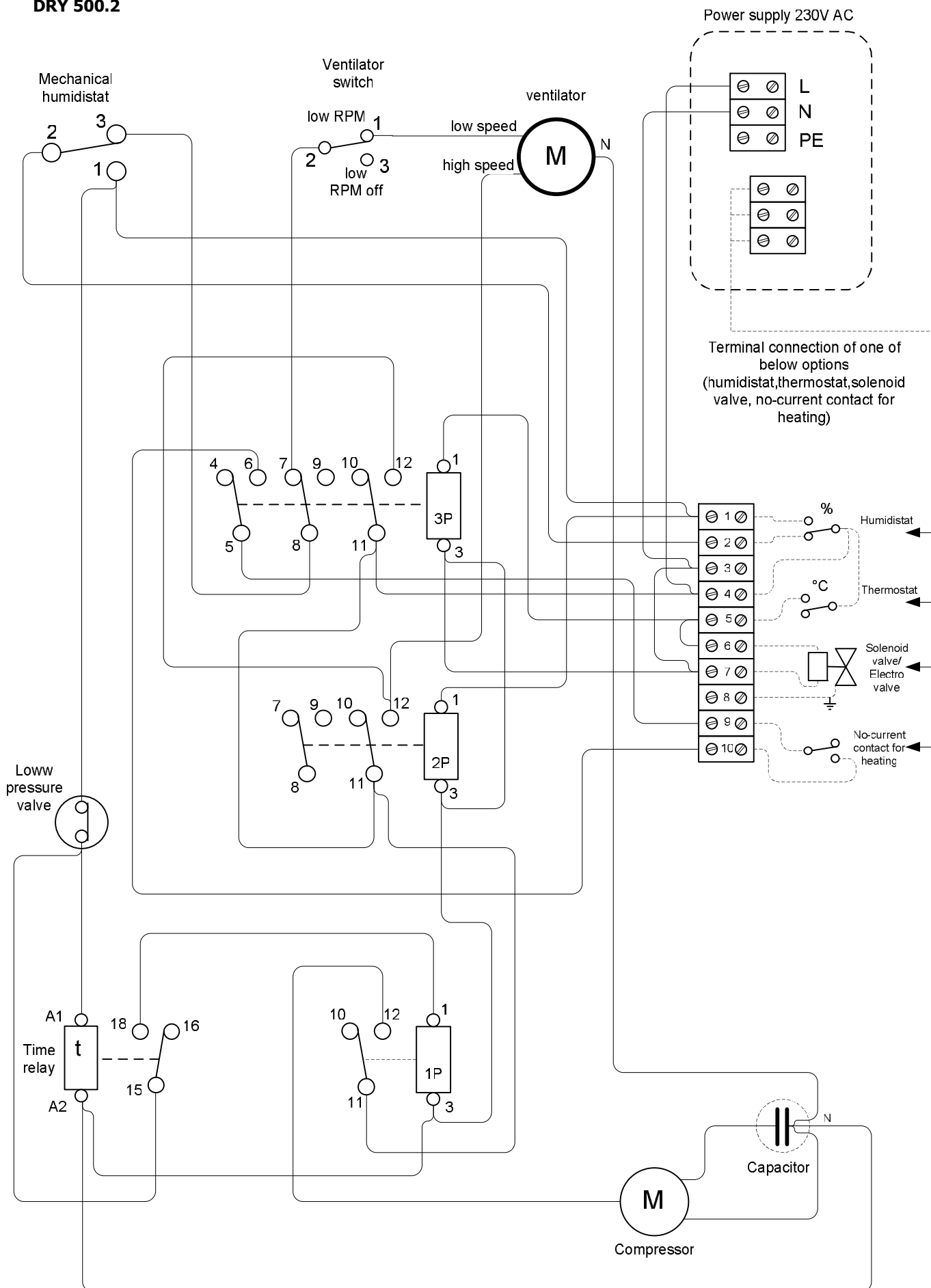
WIRING DIAGRAM OF MODEL MICROWELL DRY 500 SILVER/METAL

	DRY 500 Standard	DRY 500 EASY 200 / HYG 6001	DRY 500 LPHW / Solenoid
METAL	DRY 500.1	DRY 500.1	DRY 500.2
SILVER	DRY 500.1	DRY 500.1	DRY 500.2

DRY 500.1



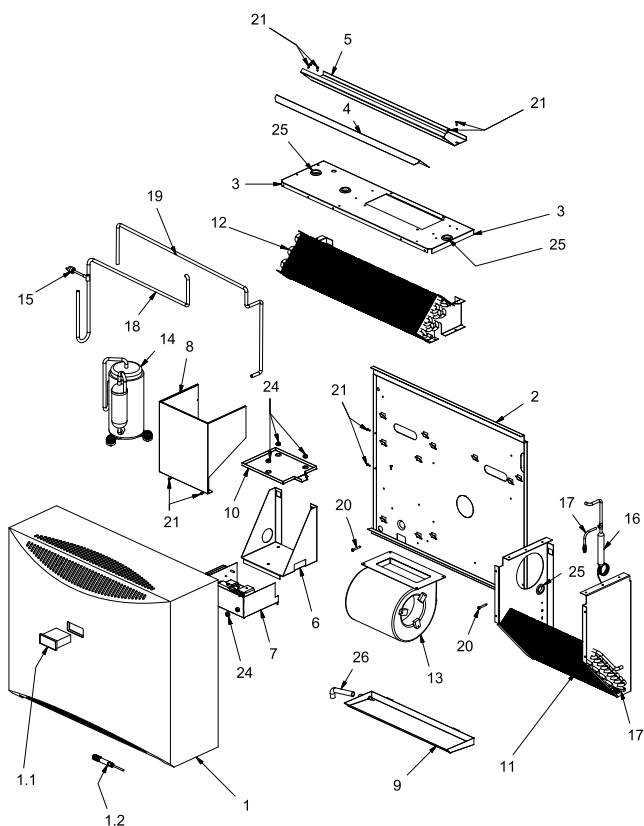
Note: Producer reserves right to make changes on wiring.

DRY 500.2

Note: Producer reserves right to make changes on wiring.

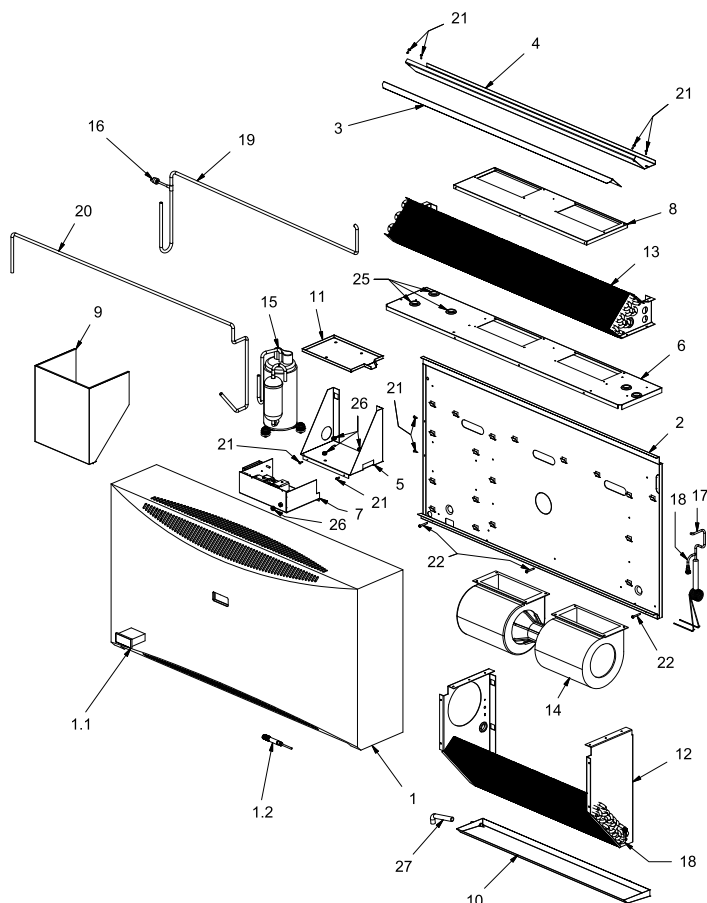
EXPANDED VIEW

MICROWELL DRY300 Metal, DRY300 Silver



Position	Component	Number of pieces
1	Metal / Stainless steel cover	1
1,1	Digital humidistat FOX-2SH	1
1,2	Humidity sensor DS-SH104	1
2	Back metal sheet	1
3	Ventilator metal sheet	1
4	Metal sheet in front of the exchanger	1
5	Metal sheet above the exchanger	1
6	Metal sheet under the compressor	1
7	Electro-box metal sheet	1
8	Compressor cover	1
9	Evaporator tray	1
10	Compressor tray	1
11	Exchanger 400 - evaporator	1
12	Exchanger 650 - condenser	1
13	Ventilator EBM D4-E133-DL01-D6	1
14	Compressor DAIKING YZG-E24RAY2	1
15	Low pressure valve Ranco HR00001 A5R703	1
16	Filter 20g d4/6mm	1
17	Filling valve, pipe d6, thread SAE 1/4"	2
18	Suction pipe d10mm	1
19	Pressure pipe d6mm	1
20	Screw ST4.8 x 38	2
21	Screw 3.5 x 13	9
24	Rubber grommet d15 DA 110/150/10	4
25	Rubber grommet d30 DA 230/300/20	4
26	Condensate pipe d18x3, 1m	1

MICROWELL DRY500 Metal, DRY500 Silver



Position	Component	Number of pieces
1	Metal / Stainless steel cover	1
1,1	Digital humidistat FOX-2SH	1
1,2	Humidity sensor DS-SH104	1
2	Back metal sheet	1
3	Metal sheet in front of the exchanger	1
4	Metal sheet above the exchanger	1
5	Metal sheet under the compressor	1
6	Ventilator metal sheet	1
7	Electro-box metal sheet	1
8	Holding metal sheet for ventilator	1
9	Compressor cover	1
10	Evaporator tray	1
11	Compressor tray	1
12	Exchanger 720 - evaporator	1
13	Exchanger 1115 - condenser	1
14	Ventilator EBM K4E146-AB73-21	1
15	Compressor DAIKING YZG-E35RY2	1
16	Low pressure valve Ranco HR00001 A5R704	1
17	Filter 30g d6/6mm	1
18	Filling valve, pipe d6, thread SAE 1/4"	2
19	Suction pipe d10mm	1
20	Pressure pipe d6mm	1
21	Screw ST3.5 x 13	9
22	Screw ST4.8 x 38	3
25	Rubber grommet d30 DA 230/300/20	7
26	Rubber grommet d15 DA 11d180/10	4
27	Condensate pipe d18x3, 1m	1

8. WARRANTY CONDITIONS

The following exceptions stated by Microwell, Ltd. apply within the warranty.

No claims will be accepted if:

1. The dehumidifier is used in an incorrect way, not as described in this manual.
2. The dehumidifier is installed in an incorrect way, not as described in this manual.
3. The dehumidifier was put to operation by an unauthorized person.
4. The air flow through the dehumidifier is out of the defined borders.
5. The water flow through the dehumidifier is out of the defined borders.
6. The water's pH level and/or chemical condition is out of the defined borders:

Acidity / pH level:	pH	7,4 +/- 0,4
Total alkalinity, as CaCO ₃	ppm	80-120
Total hardness, as CaCO ₃	ppm	100-300
Total melted dry mass	ppm	max. 3000
Maximal saline content	wt/wt	6%
Free chlorine range	ppm	1,0-3,0
Superchlorination	ppm	max. 30 ppm/max. 24 hours
Bromine	ppm	2-3
Baquacil	ppm	25-50
Ozone	ppm	0,8-1,0
Maximum copper content	ppm	max. 2
Aquamatic single purifier	ppm	max. 2
Tarn clean purifier	ppm	max. 2
Sherwood purifier	ppm	max. 2

7. The dehumidifier suffered frost damage.
8. The electric tension source is insufficient or improper in any other way.

IN CASE OF ANY UNCERTAINTY YOU MAY HAVE, PLEASE FEEL FREE TO CONTACT US !

NOTE:

When applying applicable warranty, the registration card that ensures applicable warranties must be returned. In case you cannot find the registration card of your dehumidifier, please contact the Service department of Microwell, Ltd. - indicated your name, address and serial number of your dehumidifier. The registration card will be then sent to you for filling in. In case you have any service or technique related questions, please specify the model number and serial number of your dehumidifier. These information will help us in making proper diagnosing of your unit and the service can be performed with a minimum time delay.

TRANSPORT INSTRUCTIONS:

The dehumidifiers must be transported only in the original packaging and in a vertical position. Make sure that the dehumidifier cannot turn over or fall down during transportation. Do never put the dehumidifier aside! It may lead to serious **compressor damage!** No claims are accepted in case of any damage caused by transportation. When receiving the product delivered to you, please check whether the package is not damaged. If any kind of objections occurs, please make a proper documentation of them.

Technický skúšobný ústav Piešťany, š.p.

Notifikovaný orgán: Identifikačné číslo 1299

Notified Body: Identification No. 1299

Autorizovaný orgán: Reg. číslo SKTC 104 / SK03



Authorised Body: Reg. No. SKTC 104 / SK03

CERTIFIKÁT ZHODY CONFORMITY CERTIFICATE

Č./No.: 712990054

pre výrobcu alebo jeho autorizovaného zástupcu v Európskej únii
to the manufacturer or his authorised representative in the European Union

MICROWELL spol. s r.o.
SNP 2018/42
927 01 Šaľa, Slovak Republic

Výrobok a určenie typu / Product and designation of type

Odvlhčovač vzduchu MICROWELL
typ DRY 300 Plastik, DRY 500 Plastik,
DRY 300 Silver DRY 500 Silver,
DRY 300 Metal, DRY 500 Metal

Dehumidifier MICROWELL
type DRY 300 Plastik, DRY 500 Plastik,
DRY 300 Silver DRY 500 Silver,
DRY 300 Metal, DRY 500 Metal

Preskúšaná vzorka spĺňa základné požiadavky na bezpečnosť podľa nasledujúcich európskych smerníc Nového prístupu:

The sample tested meets the essential safety requirements of the following European New Approach Directives:

Smernica o EMC
Smernica o nízkom napätí

2004/108/EC
2006/95/EC

2004/108/EC
2006/95/EC

EMC Directive
Low Voltage Directive

Existujú pre to nasledujúce dokumenty:
záverečný protokol č.
750146/2007

For this the following documents exist:
Final Report No.
750146/2007

Dodržiavajúc všetky príslušné smernice ES a poskytujúc ES Vyhlásenie výrobcu o zhode, vyššie uvedený výrobok môže byť opatrený označením CE.

Observing all relevant EC New Approach Directives and providing the Manufacturer's EC Declaration of Conformity above mentioned product can be labelled with CE marking.



Piešťany 26.09.2007
750146

TSÚ Piešťany, š.p.
Krajinská cesta 2929/9
921 01 Piešťany
Slovenská republika

042129



Ing. Anna ONDRAŠIKOVÁ
riaditeľka posudzovania zhody výrobkov
Product Conformity Assessment Director

Telefón: +421 33 7957111
Fax: +421 33 7723716
e-mail: tsu@tsu.sk
web: www.tsu.sk

MICROWELL, Ltd.

SNP 2018/42

927 01 Šaľa, Slovakia

Phone: +421 31 7020 540-1

Fax: +421 31 7020 542

E-mail: microwell@microwell.sk

www.microwell.eu

Distributed by: